

## PART 234—GRADE CROSSING SIGNAL SYSTEM SAFETY

### Subpart A—General

Sec.

- 234.1 Scope.
- 234.3 Application.
- 234.4 Preemptive effect.
- 234.5 Definitions.
- 234.6 Penalties.

### Subpart B—Reports

- 234.7 Accidents involving grade crossing signal failure.
- 234.9 Grade crossing signal system failure reports.

### Subpart C—Response to Reports of Warning System Malfunction

- 234.101 Employee notification rules.
- 234.103 Timely response to report of malfunction.
- 234.105 Activation failure.
- 234.106 Partial activation.
- 234.107 False activation.
- 234.109 Recordkeeping.

### Subpart D—Maintenance, Inspection, and Testing

#### MAINTENANCE STANDARDS

- 234.201 Location of plans.
- 234.203 Control circuits.
- 234.205 Operating characteristics of warning system apparatus.
- 234.207 Adjustment, repair, or replacement of component.
- 234.209 Interference with normal functioning of system.
- 234.211 Security of warning system apparatus.
- 234.213 Grounds.
- 234.215 Standby power system.
- 234.217 Flashing light units.
- 234.219 Gate arm lights and light cable.
- 234.221 Lamp voltage.
- 234.223 Gate arm.
- 234.225 Activation of warning system.
- 234.227 Train detection apparatus.
- 234.229 Shunting sensitivity.
- 234.231 Fouling wires.
- 234.233 Rail joints.
- 234.235 Insulated rail joints.
- 234.237 Reverse switch cut-out circuit.
- 234.239 Tagging of wires and interference of wires or tags with signal apparatus.
- 234.241 Protection of insulated wire; splice in underground wire.
- 234.243 Wire on pole line and aerial cable.
- 234.245 Signs.

#### INSPECTIONS AND TESTS

- 234.247 Purpose of inspections and tests; removal from service of relay or device failing to meet test requirements.
- 234.249 Ground tests.
- 234.251 Standby power.
- 234.253 Flashing light units and lamp voltage.
- 234.255 Gate arm and gate mechanism.
- 234.257 Warning system operation.
- 234.259 Warning time.
- 234.261 Highway traffic signal pre-emption.
- 234.263 Relays.
- 234.265 Timing relays and timing devices.
- 234.267 Insulation resistance tests, wires in trunking and cables.
- 234.269 Cut-out circuits.
- 234.271 Insulated rail joints, bond wires, and track connections.
- 234.273 Results of inspections and tests.

#### APPENDIX A TO PART 234—SCHEDULE OF CIVIL PENALTIES

#### APPENDIX B TO PART 234—ALTERNATE METHODS OF PROTECTION UNDER 49 CFR 234.105(C), 234.106, AND 234.107(C).

AUTHORITY: 49 U.S.C. 20103, 20107, and 49 CFR 1.49.

SOURCE: 61 FR 31806, June 20, 1996, unless otherwise noted.

### Subpart A—General

#### §234.1 Scope.

This part imposes minimum maintenance, inspection, and testing standards for highway-rail grade crossing warning systems. This part also prescribes standards for the reporting of failures of such systems and prescribes minimum actions railroads must take when such warning systems malfunction. This part does not restrict a railroad from adopting and enforcing additional or more stringent requirements not inconsistent with this part.

#### §234.3 Application.

This part applies to all railroads except:

- (a) A railroad that exclusively operates freight trains only on track which is not part of the general railroad system of transportation;
- (b) Rapid transit operations within an urban area that are not connected to the general railroad system of transportation; and
- (c) A railroad that operates passenger trains only on track inside an installation that is insular; i.e., its operations are limited to a separate enclave in